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Anti-AQP11 Picoband Antibody

Catalog # ABO11662

Specification

Anti-AQP11 Picoband Antibody - Product Information

Application	**WB**
Primary Accession	Q8NBQ7
Host	**Rabbit**
Reactivity	**Human, Mouse, Rat**
Clonality	**Polyclonal**
Format	**Lyophilized**

Description
Rabbit IgG polyclonal antibody for Aquaporin-11(AQP11) detection. Tested with WB in Human;Mouse;Rat.

Reconstitution
Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-AQP11 Picoband Antibody - Additional Information

Gene ID 282679

Other Names
Aquaporin-11, AQP-11, AQP11, AQPX1

Calculated MW
30203 MW KDa

Application Details
Western blot, 0.1-0.5 µg/ml, Human, Mouse, Rat

Subcellular Localization
Membrane ; Multi-pass membrane protein .

Protein Name
Aquaporin-11

Contents
Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.

Immunogen
A synthetic peptide corresponding to a sequence at the N-terminus of human AQP11 (35-70aa ARQQLHRPVAHAFVLEFLATFQLCCCTHELQLLSEQ), different from the related mouse sequence by two amino acids, and from the related rat sequence by three amino acids.

Purification
Immunogen affinity purified.

Cross Reactivity

No cross reactivity with other proteins.

Storage	**At -20˚C for one year. After r˚Constitution, at 4˚C for one month. It˚Can also be aliquotted and stored frozen at -20˚C for a longer time.Avoid repeated freezing and thawing.**

Anti-AQP11 Picoband Antibody - Protein Information

Name AQP11 (HGNC:19940)

Synonyms AQPX1

Function
Channel protein that facilitates the transport of water, glycerol and hydrogen peroxide across membrane of cell or organelles guaranteeing intracellular homeostasis in several organes like liver, kidney and brain (PubMed:24845055, PubMed:24918044, PubMed:31546170). In situation of stress, participates in endoplasmic reticulum (ER) homeostasis by regulating redox homeostasis through the transport of hydrogen peroxide across the endoplasmic reticulum membrane thereby regulating the oxidative stress through the NADPH oxidase 2 pathway (PubMed:31546170). Plays a role by maintaining an environment suitable for translation or protein foldings in the ER lumen namely by participating in the PKD1 glycosylation processing resulting in regulation of PKD1 membrane trafficking thereby preventing the accumulation of unfolding protein in ER (By similarity). Plays a role in the proximal tubule function by regulating its endosomal acidification (By similarity). May play a role in postnatal kidney development (By similarity).

Cellular Location
Endoplasmic reticulum membrane; Multi-pass membrane protein. Cytoplasmic vesicle membrane; Multi-pass membrane protein. Cell membrane {ECO:0000250|UniProtKB:F6S3G9}; Multi-pass membrane protein. Note=Localizes mainly to the periphery of lipid droplets (PubMed:24845055). Localizes to cytoplasmic vesicles in maturing spermatozoa (PubMed:28042826). It accumulates partly in mitochondrial-associated endoplasmic reticulum membranes (PubMed:31546170).

Tissue Location
Detected in the sperm head and tail (at protein level) (PubMed:28042826). Expressed in subcutaneous adipocytes (PubMed:24845055). Expressed in testis, kidney and ejaculated spermatozoa (PubMed:19812234).

Anti-AQP11 Picoband Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety

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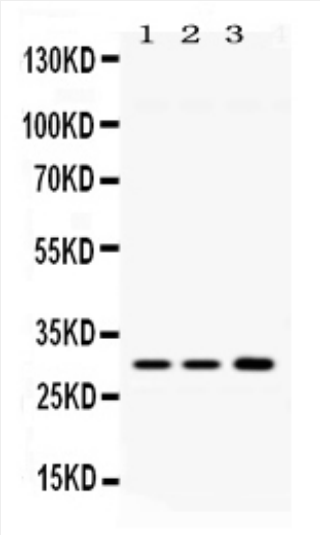
- Cell Culture

Anti-AQP11 Picoband Antibody - Images



Western blot analysis of AQP11 expression in rat brain extract (lane 1), mouse brain extract (lane 2) and HELA whole cell lysates (lane 3). AQP11 at 30KD was detected using rabbit anti AQP11 Antigen Affinity purified polyclonal antibody (Catalog # ABO11662) at 0.5 ??g/mL. The blot was developed using chemiluminescence (ECL) method .

Anti-AQP11 Picoband Antibody - Background

AQP11 has a unique asparagine-proline-alanine (NPA) box distinct from those of other AQPs, suggesting a different pore structure and function. Using Northern blot analysis, they detected highest expression of mouse Aqp11 in testis, followed by liver and kidney. Expression was much weaker in heart, brain, and muscle. Western blot analysis of mouse kidney membrane fractions detected Aqp11 at an apparent molecular mass of 26 kD, lower than the calculated molecular mass of 30 kD. Immunohistochemical analysis localized Aqp11 to mouse renal proximal tubule cells, where it showed a perinuclear distribution. Fluorescence-tagged Aqp11 localized with an endoplasmic reticulum marker.